NORTH CENTRAL REGION HAWK

Vol.2, Issue 3 **Civil Air Patrol** **June 2003**

To Be Ready, Responsive, and Relevant

GAME ON

Outdoor Adventurers to Use 406 MHz Personal Locator Beacons

In a recent article released by NASAR by Patricia Viets, from the NOAA Satellite and Information Services, outdoor adventurers will soon have access to 406 MHz Personal Locator Beacons. Beginning July 1, 2003, the FCC has approved a request by NOAA for release of the 406 MHz frequency for public use. This decision will benefit the millions of people who annually explore the wilderness of the U.S.; opening up the potential for saving more lives. The Cospas-Sarsat system currently in use to detect and locate emergency locator beacons in civilian and military aircraft in distress will now be used to do the same for outdoor adventurers in distress. There are currently 87,000 beacons registered in NOAA's beacon database, mostly associated with small aircraft. This number is expected to rise dramatically within the year as people use the new ELT system on the ground. In the case of the 406 MHz beacon, the owner's contact information is encoded, so when a signal is heard, the Rescue Coordination Center notifies the owner or emergency contact. If the signal is not a false alert, search and rescue teams will be dispatched. To the CAP, this means a proportionate increase in the number of ELT (121.5 MHz) missions. Some of those may be associated with wilderness 'non-distress' situations, where the beacon is inadvertently activated. However, there will be a distinct possibility that with wilderness activations, there may be a 'distress' situation requiring assistance. All of us will need to be on our best game as the public discovers the nuances of this new adventure tool. As the year progresses, it may be common to dispatch 'wilderness DF teams' to deactivate those 'park and wilderness bangers'.

CREW'S CONTROL

'Operation ABC Mobilization'

According to the National Highway Traffic Safety Administration (NHSTA), 5,000 to 7,000 lives could be saved each year, if the public was convinced to buckle their seat belts 100% of the time. Fatality rates for teens are twice that of older drivers, and the risk of crashes for teens is four times that of older drivers. The most critical age for not wearing seat belts is between 18-25 years of age. It is predicted that this year, 9,000 drivers and passengers in vehicles on U.S. highways and roads will die in crashes because they did not buckle their seat belts.

The holiday weekends are particularly dangerous for motorists. The National Safety Council predicts that over 400 people will die and over 29,000 people will suffer disabling injuries resulting from crashes during any long holiday weekend. The U.S. Department of Defense and Department of Transportation twice yearly promote 'Operation ABC Mobilization' to increase the awareness of seat belt use. The most dangerous travel times are between Memorial Day weekend through July's Independence Day, and then again from Thanksgiving through New Year's Day. In the CAP, the most dangerous travel time is any time we get in a vehicle and travel to an activity. Buckle up and make sure those around you buckle up, because you are our most valuable resource, and it is the law.

ALCYONEUS NOW

Surviving a Terrorist Attack

There are no golden rules to follow that will protect you from a terrorist attack, especially if the selected targets of opportunity are considered 'soft' targets. A 'soft' target is a lightly guarded

building/facility of no military or economic significance that would endanger a large populace with limited risk to the terrorist. This would include sporting events, shopping malls, and large apartment buildings. Such an attack could involve biological, chemical or radioactive material.

There are steps that can be taken to limit the risk if you are outside in the area of an explosion:

- Cover your nose and mouth- The greatest danger with any toxic substance is inhalation. A handkerchief, shirtsleeve, scarf, or any thin fabric will reduce the change of inhaling the toxic substance, including the choking dust associated with an explosion.

- Move quickly at an angle to the wind- With any explosion, something dangerous may be drifting towards you. Travel as fast as you can at angles perpendicular to the wind direction. Get around a corner, putting a building between you and the downwind plume of toxic material.

- Get inside a stable building- If you cannot outrun it, get into a stable building and get away from it. Most buildings are relatively airtight and will keep most toxic substances out for some time.

- Duck and cover- Get to an interior room without windows and behind something solid. Then curl up to protect your face and eyes to wait out the next couple of minutes.

- Respect the potential for contamination- Assume you were exposed to something toxic and remove outer layers of clothing. As you remove them be careful to remove them so the inside is out, and the outer contaminated surface is on the inside. Pile the contaminated clothing (including the shoes) in a place where no one will touch them.

- Wash off the potential contaminate- Wash your exposed skin parts with warm water and soap. Rinse, wash again, and rinse. If you will be evacuating soon, pick up your shoes with paper towels and wash them as you did your exposed skin. The shoes will be wet when you put them back on, but it is better than walking on the broken glass that can be expected in the area. If possible, place your outer clothing in a sealed carrying container.

- Do what you are told- Listen to what you are told to do from appropriate officials. Do not second-guess emergency responders, law enforcement personnel or government officials, just do it. They will have the expertise to know what is going on and how to limit casualties and mitigate consequences.

There are steps that can be taken to limit the risk if you are inside and if the area of an explosion is outside:

- Seal up the building/room- Close the doors and windows, turn off the ventilation and make the area relatively airtight. That will keep most toxic substances from drifting in.

- Duck and cover- Get to an interior room without windows and behind something solid. Then curl up to protect your face and eyes to wait out the next couple of minutes.

- Stay in place and monitor the radio/television- Keep listening for emergency announcements to let you know what should be done. Unless your building is in the immediate vicinity of a toxic plume or there is structural damage to the building, you are better to stay in place. Wait for someone in authority to tell you when, where, and how to evacuate to a safe zone.

- Do what you are told- Listen to what you are told to do from appropriate officials. Do not second-guess emergency responders, law enforcement personnel or government officials, just do it. They will have the expertise to know what is going on and how to limit casualties and mitigate consequences.

There are steps that can be taken to limit the risk if you are inside in the area of an explosion:

- Get out as quickly as you can- With an airtight building, a released toxic substance will stay concentrated and not be dispersed and diluted by the winds, as it would be outside. Get out as quickly and as safely as you can while minimizing passage through contaminated areas, helping as many others as possible to do the same.

- Cover your nose and mouth- The greatest danger with any toxic substance is inhalation. A handkerchief, shirtsleeve, scarf, or any thin fabric will reduce the change of inhaling the toxic substance, including the choking dust associated with an explosion.

- Move quickly at an angle to the wind- With any explosion, something dangerous may be drifting towards you. Travel as fast as you can at angles perpendicular to the wind direction. Get around a corner, putting a building between you and any downwind plume of toxic material that may have escaped the building you left.

- Get inside a stable building- As soon as possible get into another stable building that can be sealed up. Most buildings are relatively airtight and will keep most toxic substances out for some time.

- Duck and cover- Get to an interior room without windows and behind something solid. Then curl up to protect your face and eyes to wait out the next couple of minutes.

- Respect the potential for contamination- Assume you were exposed to something toxic and remove outer layers of clothing. As you remove them be careful to remove them so the inside is out, and the outer contaminated surface is on the inside. Pile the contaminated clothing (including the shoes) in a place where no one will touch them.

- Wash off the potential contaminate- Wash exposed skin parts with warm water and soap. Rinse, wash again, and rinse. If you will be evacuating soon, pick up your shoes with paper towels and wash them as you did exposed skin. The shoes will be wet when you put them back on, but it is better than walking on the broken glass that can be expected in the area. If possible, place your outer clothing in a sealed plastic bag or container.

- Do what you are told- Listen to what you are told to do from appropriate officials. Do not second-guess emergency responders, law enforcement personnel or government officials, just do it. They will have the expertise to know what is going on and how to limit casualties and mitigate consequences.

(Editor Note: The above information was summarized from an article by Sydney J. Freedberg Jr. from the National Journal as presented in the 'GovExe.com' E-mail Newsletter of 12-Feb-2003.)

MISSION READY- FROM THE DOG POUND- Tips for Becoming a Better Aircrew 'Crew Dog'

Crew Dog Responsibilities

The name 'Crew Dog' was borne in the early years of the U.S. Air Corps, and got its descriptors refined and polished during several missions and tours of duty as a member of the U.S. Air Force. A Crew Dog is a member of a crew who is mission-ready to fulfill the duties as assigned during a sortie. It is not important what the duty is, or the rank the Crew Dog holds. A Crew Dog is the ultimate team member in crew resource management with a 'can do' attitude, bringing professional value to the operational unit. A Crew Dog is a force multiplier and every team hopes to have at least one Crew Dog to ensure the potential for success.

A Crew Dog in the CAP is an emergency services member who believes in the 'total mission' concept of an operation. The Crew Dog gets the job done as a valued member of the crew. In air operations the Crew Dog could be the right-seater helping the Pilot in Command. It could be the Scanner, Observer, the High-Bird Controller, and/or the PIC. For this discussion, the Crew Dog responsibilities will be for the 'GIBs' (Guys or Gals in Back) of our mission aircraft. A good Crew Dog must bring a value to the aircrew in the form of mission experience or qualifications.

An Air Crew Dog will:

- Know aerial navigation, relating the sectional maps to terrain features and locations
- Know and understand the proper use of the electronic direction finding equipment
- Understand the proper use of the aircraft navigation and communications systems
- Know and understand the proper use of air to ground navigation of emergency vehicles

Pre-Sortie Responsibilities:

During the pre-sortie tasks, the Crew Dog takes briefing notes and helps prepare the aircraft for the sortie. The Crew Dog must focus on the tactical aspects of the sortie.

- Discuss the hazardous risk potential with the Safety Officer and document the steps to be taken to mitigate the risks.
- Plot all appropriate information on an aeronautical chart during the sortie briefing
- Complete a pre-flight walk around the aircraft and help prepare the aircraft for departure:
    - Clean the inside windows
    - Inspect and clean the floor of the cockpit
    - Inspect and secure items in the storage area
    - Locate and identify all items in the seat and door pockets
    - Inspect all seat belts and sliding seat locks
    - Locate and inspect the fire extinguisher

Engine Start-up/Taxi/Run-Up/Take-Off Responsibilities:

Most human-caused errors or accidents in flight operations occur in the first and last fifteen minutes of the sortie, when the Pilot's attention is divided between what is going on in the cockpit and what is going on outside. A Crew Dog must be the extra set of eyes and ears for the Pilots.

- The main task for a Crew Dog during this phase is to listen and observe:
    - Listen for and record the assigned Flight Service radio frequencies, and watch the pilots enter the numbers into the nav/com radios *
    - Listen for and record the assigned altimeter/barometric pressure settings, and watch the pilots adjust the altimeter *
        - * Even the best Pilots can make a mistake by entering the wrong numbers.
- Offer to read off the checklist items for 'Run-Up' and 'Take-Off'
- If you are not involved in the checklists, keep an eye on those quadrants of view the Pilots cannot see for ground obstacles, taxi traffic or aircraft in the pattern.
    - When the Pilot's focus is on the inside of the cockpit, the Crew dog's eyes should be focused on the outside.
    - As the aircraft is pulling out onto the runway for a taxi or take-off, the Pilot cannot see approaching traffic on the opposite side of the turn or on the tail.

Sortie Responsibilities:

The mission sortie begins the moment the aircrew is briefed. The tactics for completing the mission begin the moment the wheels leave the ground. A Crew Dog documents the progress.

- Begin the mission scanning from the end of the runway on to the assignment area.
- If on an ELT Direction Finding sortie, monitor for ELT signals immediately after take-off.
- Visually maintain and update your position on the aeronautical chart whenever possible.
- Plan for the exception, maintaining chart navigation to 'back-up' the use of the aircraft nav/comm system and GPS.
- Record times, locations, activity, and any change in status. If requested to do so, maintain the communications log along with the mission 'journal'.
- Assist the Pilots in retrieving items of importance from flight bags or storage.

Landing Responsibilities:

A Crew Dog's responsibilities during the landing phase are identical to that during the engine start-up, tax, run-up, and take-off phases.

- Assist the Pilots in the use of the checklists
- Listen for the reported wind speed and direction, radio frequencies, and altimeter setting.
- Observe and report all activity outside of the cockpit in quadrants not easily seen by the Pilots during the landing pattern.

Debriefing Responsibilities:

After reviewing the sortie journal and communications log, the Crew Dog should present a synopsis of the entire sortie to the Sortie Commander. During the debriefing, the Sortie Commander will rely on the thoroughness and accuracy of these records. A Crew Dog will also emphasize key debriefing items including the sortie hazard risk assessments.

A Crew Dog is prepared to go beyond the usual behavior of an aircrew member, contributing greatly to the success of the mission at all times.

SEMPER VI

Nutritional Peak Performance

Few people realize the importance of good nutrition in performance. Fewer people relate it to the performance one will need during search and rescue activities. A good nutritional diet can increase endurance, limit fatigue, reduce fear and anxiety, and improve decision processes. A good nutritional diet can improve mental and physical performance by 15%.

Elemental nutrition deals with food components that can enhance performance:

- Carbohydrates - increase physical endurance, reduce fear and anxiety (cereals, grains, vegetables, fruit, and pastas)
- Tyrosine - better adjustment to high altitude, cold (nuts and legumes)
- Choline - improve muscular coordination, sharpen mental clarity (eggs and soybeans)
- Carnitene - increase physical performance over a period of time (red meat, poultry, and fish)
- Structured Lipids - strengthen immune response (manufactured caloric supplements such as 'Ovaltine' and 'Slim Fast')

If there is such a thing as advance preparation for emergency response, proper meals need to be considered:

- Pre-Activity (16-24 hrs. prior)- Pasta (spaghetti, linguini, macaroni)
  Vegetable Juice (Tomato, Carrot, V-8)
  Low-Fat Milk
  Water (1 cup per 50-lb. body weight)

- Pre-Activity (2-4 hours prior)- Whole Grain Cereal (Nutri-Grain, Wheaties Grape Nuts)
  Low-Fat Milk
  Poached or Scrambled Eggs
  Fresh Fruit (Banana, Orange, Apple, Peach)
  Vegetable Juice (Tomato, V-8)
  Coffee, Tea, or Cocoa
  Water (1 cup per 50-lb. body weight)

- Post-Activity- Fish or Poultry
  Baked or Boiled Potato
  Steamed Vegetable (Carrots, Green Beans, Broccoli, Squash)
  Citrus Fruit
  Coffee
  Water (According to thirst)

- Foods to Avoid: Peanut Butter, Butter, Salt, Oils, Sugar, Fruit Juices, Alcohol, excess Caffeine

With that in mind, the following recipes were developed as search and rescue 'power snacks' based on the need of the search team.

Aircrews- Aircrews must maintain a high degree of alertness, while guarding against fatigue and hypoglycemic conditions in a closed system during a 3-4 hour flight. This snack is designed to do the following:

Increase endurance, reduce anxiety
Improve alertness, sharpen mental clarity
Increase tolerance to cold
Adjust better to altitude change
Decrease muscle fatigue

'Cockpit Crunch': **2 cups of 'Multi-Grain Cheerios' Cereal**
1 cup of unsalted mixed nuts
½ cup of dried banana chips
½ cup of dried apple chips
1 cup of plain chocolate M&Ms

Ground Teams- Ground teams must maintain physical endurance and mental clarity for 4-8 hour time periods, while guarding against fear, anxiety, and fatigue. Continual intake of water is recommended as needed or the body demands. This snack is designed to do the following:

Increase physical endurance and tolerance to cold
Limit fear and reduce anxiety
Improve alertness, sharpen mental clarity
Improve muscular coordination and stamina

'Fanny Pack Snack': **2 ½ cups of 'Corn Pops' Cereal**
1 cup of unsalted mixed nuts
½ cup of dried banana chips
½ cup of dried apple chips
½ cup of chocolate covered raisins

Mission Base Support Staff- Mission Staff must maintain mental alertness and stamina while avoiding hypoglycemia, which may lead to diminish decision-making processes over long periods of time of 8-12 hours. This snack is designed to do the following:

Improve stamina and limit fatigue
Improve alertness, sharpen mental clarity
Limit fear and reduce anxiety
Improve the decision-making process

'Mission Munch': **2 ½ cups of 'Crispix' Cereal**
1 cup of unsalted mixed nuts
½ cup of chocolate covered raisins
½ cup of dried apple chips
½ cup of plain chocolate M&Ms

It is understood that a searcher's eating preference is a personal thing. I happen think that pizza is the forgotten and much misunderstood food group, with cottage cheese being a waste of good milk. The discussion could go into detail about how the anti-oxidants of hot green tea are better than the caffeine-rich coffee, but there is not enough time to touch upon it all. The best rules of thumb are these:

- It is ill advised to have a breakfast burrito with 3 cups of coffee just prior to take-off on a mission sortie.
- It is ill advised to have multiple bowls of 'four alarm' chili the night before a day of ground team or flight activity.
- It is ill advised to have a cabbage, cucumber and radish salad with vinegar sauce for lunch while working as the Debriefing Officer during a mission.
- It is ill advised to be drinking cola in the 44 oz. 'Big Gulp' while working alone in the communications van.
- It is ill advised not to eat anything during the course of the mission activity, as you will need every source of energy and brain food for a successful mission.

SURVIVAL SENSE

Six Common Sense 'C's of an In-flight Emergency Situation

- **Confess** to yourself that you are in an emergency situation and that steps must be taken to correct the situation
- **Climb** to a higher altitude if the weather will allow you to do so. This will allow you to have greater range on radio communications
- **Communicate** your situation to others:
    - Your identification
    - Time of broadcast
    - Nature of the emergency
    - Position (state precise or estimated
    - Heading (state true or magnetic)
    - Airspeed (state true or estimated)
    - Estimated fuel on board
    - Your intentions
    - Desired Assistance
- **Conserve** fuel by reducing the throttle for optimum flight endurance
- **Comply** with all instructions from a controlling agency
- **Consult** with available 'experts' for additional options

There is one last piece of advise to remember; ‘flying the airplane is more important than radioing your plight to a person on the ground incapable of understanding it or doing anything about it.

GOING FROM GOOD TO GREAT

Training Principles for Emergency Services

A new emergency services training philosophy should be developed that would apply to all levels of training fro combined forces mission operations (air, ground and communication). These principles provide direction and enough flexibility to meet the demands of the local unit or wing operation. A good training program, managed properly will provide the following:

- A measurement of performance
- An ability to adjust to a changing situation
- A cohesive connection between units instead of competitiveness

There are eight training principles that should be followed:

1. Train to the Mission

   All training should reflect mission requirements, with each member of the unit training to operational standards. Those standards are designed for the unit members to perform tasks that support the unit responsibilities in the context of a total mission response.

2. The Commander is Responsible for Training

   It is recommended that the commander assume the responsibility for training the unit. The actual hands-on for training is delegated to the operational officers, but the commander’s presence and involvement demonstrates training as a high priority in support of strategic planning.

3. Adhere to Standards-based Training

   Standardized operational procedures and methods need to be designed to support the potential mission. There are three types of training standards:

   - Individual Training Standards (ITS) for mission specialties
   - Unit Performance Standards (UPS) to enhance the combined forces concept of air, ground and communications in support of potential mission operations
   - Mission Readiness Standards (MRS) to combine individual and unit readiness on a large scale to promote mission readiness

4. Use Performance-oriented Training

   Emergency Services members become proficient in the basic skills required to support the mission. Train to set performance standards, not to occupy time set aside for training.

5. Use Mission-oriented Training

   The commanders develop the training program in support of possible mission scenarios.

6. Train as a Combined-forces Team

   The only way a combined forces operation can develop proficiency and efficiency is by regularly training as a combined force. Routine training with air, ground, tactical communications, and mission staff planning must be practiced on a regular basis.

7. Train to Sustain

Commander must evaluate echelon performance and design future training to remove weaknesses and enhance strength. What is weak, you make strong. What is strong you count on. Your goal is to train to sustain proficiency.

8. Train to Challenge

   Training is designed to build confidence, demonstrate competence, seek out excellence, encourage initiative, improve learning, and challenge the individual and/or unit.

CARRYING THE FIRE- MARKETING YOUR OPERATIONS TO CUSTOMERS

Elements of an Emergency Services Marketing Plan

The following is a summary of a marketing plan for your emergency services operation. You can have a product for the market, but without a good marketing plan it will just sit in inventory gathering dust.

Your marketing plan requires the following elements:

- The Marketing Situation- a summary of your present situation regarding what you are currently able to do, who your customers are, what their needs are, and how well you can adapt your product to their needs. This is when you do a SWOT analysis (Strength, Weaknesses, Opportunities, Threats).

- The Marketing Objectives- a summary of your short and long term goals with your program, such as program diversification, and additional customer segments to present your programs to. You market objectives should be realistic and measurable (ex. Increase inter-agency activity by 10%, increase hours flown on aircraft by 15%, or increased number of qualified responders by 30%).

- The Marketing Strategies- determine the ways to achieve your goals, what you will offer, how you will bring the programs on-line for use, how you will demonstrate the programs, how you will research and develop new programs.

- The Budget- every emergency services program needs a budget. Usually that budget is totally consumed in training exercises. A good marketing program must include budget items that involve research/development, administrative/logistics costs, practice/ competency, demonstration/presentations, and training of units. There must also be a strategy for monitoring and cutting costs.

- The Action Plan- Design and implement an advertising campaign promoting your services. Contact with potential customers and set-up appointments to briefly describe what your services can do for them. Demonstrate to the customer how your service can save them time, money, while providing a better service than they currently have.

- Evaluate the Plan- evaluate the effectiveness of the marketing plan by looking at and documenting the measurables from your goals and objectives after three months, six months, and a year. If you have not met your measurables after a year, you will need to develop a new marketing plan.

DID YOU KNOW?

Hypothermia

If a member of your team is showing the symptoms of hypothermia, it is important not to delay treatment. When the symptoms of hypothermia are prominent, a delay in immediate treatment can lead to death.

Signs and Symptoms of Hypothermia: (in order of occurrence)

- Shivering, noticeable 'goose pimples', pale, numb skin
- Apathy, confusion, amnesia, belligerence, incoherence, irrational behavior
- Lethargy with occasional bursts of energy
- Slow, shallow breathing, erratic heartbeat, and lapses of consciousness
- Slowing and weakening pulse leading to cardiac arrest

Treatment of Hypothermia:

- If the person is wearing wet clothing, it is important to remove the clothing and replace it with warm and dry clothing immediately
- If possible provide the person with a warm, sugary drink
- Wrap them in dry blankets and insulate them from the cold, moisture, and the wind
- Begin warming the extremities to get the warmed blood flowing to the body's core
- Keep the person eating and drinking warm food or drink as the energy requirements for the body are significantly higher than usual
- Get the person to a warm sheltered area or medical facility as soon as possible

Hypothermia can occur during anytime of the year, in most environments, under any conditions where the body core temperature drops below 95 degrees F (35 C) and turns deadly below 90 degrees F (32 C). Never take the potential for hypothermia lightly.

CHECK IT OUT!

Check out this website from EMI for FEMA. It is another home-study on-line course that you can take on line, or download and submit your answers to a final exam at a more convenient time. With a submission of the final exam and a passing grade of 70% or greater you will earn a FEMA Certificate at no cost. This course is an excellent home study to learn efficient and effective communications for the emergency response leader, including how to work with the media.

http://training.fema.gov/EMIWeb/is242.htm 'Effective Communications'

Words of Wisdom- Coffee Cup Leadership Advise from the Military Pros

The important things are always simple.

The simple things are always hard.

If it is stupid but works, it is not stupid.

The problem with taking the easy way out is that the enemy has probably already set up an ambush. (from an old U.S. Cavalry saying)

FAMOUS QUOTES

We are what we repeatedly do. Excellence is not an act, but a habit. (Aristotle)

SUBMISSIONS

Queries, suggestions, and news items are welcome. Please submit to the following addresses:

Mail: Bruce Marxsen
5231 Topaz Crt.
Lincoln, NE 68516

E-mail: dos@ncr.cap.gov

The next issue of the 'North Central Region Hawk' will be sent out on or about 15-Aug-2003. Please have information you would like to be considered in that issue to my attention no later than 01-Aug-2003.